

**THE INDO-EUROPEAN BASIS OF
PROTO-ARMENIAN:
PRINCIPLES OF RECONSTRUCTION.¹**

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Heinrich Hübschmann proved in 1875² that Armenian is an independent Indo-European language, not an Iranian dialect. He established this on the lexical level by the differentiating between Iranian loan words and inherited Armenian words³, and on the

1. The Russian version of this paper, *Индоевропейская основа протоармянского и принципы её реконструкции*, was presented at the Linguistic Institute of the Georgian Academy of Sciences (Tbilisi, September 1987); the German version, *Die indogermanische Basis des Protoarmenischen. Prinzipien ihrer Rekonstruktion*, was contributed to the International Symposium on Armenian Linguistics, Yerevan 1987. I would like to thank Karin Hlaváček, assisted by Míchéal Ó Flaithearta and Reinhard Stempel, for the English translation, read at the University of Salamanca (March 1990).

2. Cf. H. Hübschmann, *KZ* 23 (1875) 5-49 = *Kleine Schriften zum Armenischen*, hrsg. von R. Schmitt (Hildesheim - New York 1976) 1-45. I quote from the latter edition.

3. Arm. *dast* 'hand' (Modern Persian *dast*) in *dastak* 'wrist', *dastakert* 'property', *dastapan* 'handle' vs. Arm. *jeɾn* < **ġhesr-* + *-n*.

grammatical level⁴. In addition, when one confronts the Iranian reflexes with the corresponding Armenian features, one notes significant differences.⁵ One also finds that correspondences between Armenian and the Indo-European languages show differences of vocalism and the variation of liquid *l* and *r*. Hübschmann, however, had not yet recognized that Indo-Iranian⁶ innovated in this case.

Hübschmann reveals two operations which are essential for every diachronic reconstruction:

1. a separation of interferences from internal developments (applied by Hübschmann to the vocabulary)
2. a confrontation of the genuine Armenian material with the corresponding material in the genetically related languages and in the Proto-Indo-European reconstruct. This comparison was carried out on the grammatical and phonological levels.

The interferences identified above are the result of contacts which Armenian had with other languages in the course of its history. Language contacts can result in the transformation of the phonological system⁷ or change of the grammatical type. The inflecting Indo-European form of declination, for example, was

4. Here Hübschmann concludes: "In der flexion des armenischen ist spezifisch iranisches nicht nachzuweisen." On the phonological level there are three steps: here he listed the set of features which define Iranian: **s-* > *h-*; a merger of voiced stops and voiced aspirates into voiced stops and assibilation/affrication of the palatals: **k̑, ġ, ġh* > *s/p, z/d* etc.

5. IE **s* > Arm. *h-*; a differentiation of voiced stops and voiced aspirates; and a different assibilation/affrication of the palatals: **k̑, ġ, ġh* > *s, c, j (z)* etc.

6. Cf. M. Mayrhofer. In: W. Cowgill/M. Mayrhofer, *Indogermanische Grammatik*, Vol. I-1/2 (Heidelberg 1986) 90; 158ff and note IE **a e o* > Indo-Iranian *a*; IE **r - l* > Indo-Iranian *r*.

7. Cf. D. M. Job, *Probleme eines typologischen Vergleichs iberokaukasischer und indogermanischer Phonemsysteme im Kaukasus* (Frankfurt/M. - Bern 1977).

replaced in Modern Armenian by an agglutinating model⁸. There is also the identification of loanword strata and Hübschmann's *Armenische Grammatik. 1. Theil. Armenische Etymologie* (Leipzig 1897) includes, besides the etymologies of 438 inherited words, a list of Iranian, Arabic, Syriac and Greek loanwords. Further sources of loanwords in Armenian have been subsequently discussed, especially the Anatolian branch of Indo-European, Hurritic and Urartian⁹, the Zan branch of South Caucasian¹⁰, and Accadian¹¹.

We note also a genetic language comparison in the framework of Indo-European. There we wish to identify Armenian as an independent Indo-European language, and reconstruct the language-change processes which must have occurred after Proto-Armenian separated from Indo-European. The process of identification has been defined by E. Benveniste¹²: "un travail [. . .] appliqué à tous les niveaux de l'analyse: phonèmes isolés, puis liés, morphèmes, signifiants complexes, constructions entières". For Armenian, whose independent character was established by Hübschmann in 1875, the results of further research have been recorded and developed in the historical grammars of this

8. Cf. Schmidt, The Indo-European Background of the Classical Armenian Noun Declension: *AArmL* 8 (1987) 35-47 = Պատմա-բանասիրական հանդես I (116) 1987: 29-39.

9. Cf. J. A. C. Greppin, The Anatolian substratum in Armenian - an interim report: *AArmL* 3 (1982) 65-72; T. V. Gamkrelidze/V. V. Иванов, Индоевропейский язык и индоевропейцы II:912f. (Tbilisi 1984).

10. Gevork B. Djahukian (Джаукян), заметки о некоторых картвельско-армянских лексических совпадениях: ИКЯ 18 (1973) 91-95; V. I. Abaev, Armeno-Ossetica: ВЯ 1978/6, 45-51.

11. Cf. G. B. Djahukian, Akkadian Loan Words in Armenian: *AArmL* 3 (1982) 1-12.

12. E. Benveniste, La classification des langues: *Conférences de linguistique de l'Université de Paris* 2 (1952/53) = Problèmes de linguistique générale (Paris 1966) 99-118.

language from A. Meillet 1902¹³ to G. B. Djahukian 1982¹⁴.

The transformations which occurred in Armenian after it branched off from Indo-European but before the beginning of the historical tradition are difficult to determine and have therefore been the subject of much controversy. Their detection involves the reconstruction of models which are not historically attested, a process which can be positively or negatively influenced by different factors including *absolute chronology* (AC) of the attested evidence, *relative chronology* (RC) (referring to the degree of conservatism), a *coherent* vs. *fragmentary tradition* (CT) and *the length of the tradition* (LT)¹⁵.

The following table compares Armenian with other Indo-European languages. It shows that for Armenian, whose *coherent tradition* begins in the 5th century, factors 3 and 4 have a positive influence:

	Anatolian	Greek	Sanskrit	Albanian	Armenian
1. AC	+	+	+	-	-
2. RC	+/-	+/-	+/-	-	+/-
3. CT	+	+	+	+	+
4. LT	-	+	+	-	+

On the other hand, Armenian *absolute chronology* is rather limited in comparison to the 4000 years of direct Indo-European tradition, a situation which is unfavourable to the reconstruction process:

BC	AD
Anatolian (2000)	Germanic (Negau, 1st. c.)
Greek (1400)	Armenian (5th c.)
Sanskrit (1000)	Tocharian (7th c.)
Iranian (700)	Slavic (9th c.)
Latino-Faliscan (600)	Baltic (15th c.)
Celtic (500)	Albanian (16th c.)

The *relative chronology* of Armenian, i.e. the degree of conservatism, can be disputed, depending on the scholar's basic

13. Cf. A. Meillet, *Esquisse d'une grammaire comparée de l'arménien classique* (Vienne 1902; ²1936).

14. Cf. G. B. Djahukian, Сравительная грамматика армянского языка (Yerevan 1982).

15. Cf. Schmidt, Rekonstruktion und Ausgliederung der indogermanischen Grundsprache: *InL* 9 (1984) 127-133.

point of view. I would like to illustrate this by two examples. On the basis of the *Glottalic theory*, espoused by Gamkrelidze and Ivanov, we have:

I	II	III		II	III
(p')	b ^h /b	p ^h /p	(b)	b ^h	p
t'	d ^h /d	t ^h /t	instead of	d	d ^h
K'	G ^h /G	K ^h /K	G	G ^h	K

Gamkrelidze and Ivanov (1984: 400) consider Armenian an archaic Indo-European language, which they define as follows: "languages in which series Group I (p', t', k') was preserved unvoiced (Germanic, Armenian, and probably Anatolian and Tocharian) may be regarded as archaic languages which are close in this respect to the basic Indo-European system."

Adherents to traditional Indo-European linguistics, on the other hand, are of the opinion that such languages as Armenian and Germanic differ considerably from the Proto-Indo-European model as the result of a consonant shift following the pattern M-T-A.¹⁶

The research of scholars such as G. Bonfante¹⁷, W. Porzig¹⁸, G. R. Solta¹⁹ and G. Djahukian²⁰ has confirmed Pedersen's

16. IE *dōm > Arm. tun 'house'; *wedōs > get 'river'; *ġenos > cin 'birth'; *g^wenā > kin 'woman'; *reg^wos > erek 'evening'; Gk. ἑρᾱνοϋ: Arm. krunk 'crane'.

17. Cf. G. Bonfante, Les isoglosses gréco-arméniennes. I. Faits phonétiques. In: *Mélanges linguistiques offerts à M. Holger Pedersen* (Aarhus 1937) 15-33; Bonfante, *The Place of Armenian among the Indo-European Languages: AION* 4 (1982) 151-169 connects Armenian with the "Southeastern group (Greek Armenian Iranian Indo-Aryan)" and states that it has "very close relations to Phrygian, Greek and also to Albanian" (1966).

18. Cf. W. Porzig, *Die Gliederung des indogermanischen Sprachgebiets* (Heidelberg 1954) 154ff.

19. Cf. G. R. Solta, *Die Stellung des Armenischen im Kreise der indogermanischen Sprachen* (Wien 1960) 73f.

20. G. B. Djahukian, The Position of Armenian in the Indo-European Languages. In: J. A. C. Greppin (ed): *First International Conference on Armenian Linguistics: Proceedings* (Delmar, New York 1980) 3-33.

hypothesis of 1906²¹, "daß das Armenische keiner anderen idg. sprache so nahe steht wie dem Griechischen"²². Two Armenian-Greek isoglosses – a phonological and a morphological correspondence – are particularly significant. These are the *prothetic vowel* (here note B. A. Olsen, "On the development of Indo-European prothetic vowels in Classical Armenian," *REArm N. S.* 19, 1985: 5-17):²³ and the *augment*, which is an isogloss between Armenian, Greek, Phrygian and Indo-Iranian.²⁴

On the basis of these and other isoglosses²⁵, Armenian, Greek, Indo-Iranian and probably Phrygian may be incorporated into the following triangle of time and space²⁶ after a model suggested by Meid 1975, 213 in a different context²⁷:

21. Cf. H. Pedersen, *Armenisch und die Nachbarsprachen*: KZ 39 (1906) 442 = *Kleine Schriften zum Armenischen*, hrsg. von R. Schmitt (Hildesheim – New York 1982) 220.

22. Cf. also H. Pedersen, *Armenier. B. Sprache*. In: *Reallexikon der Vorgeschichte*, hrsg. von Max Ebert. Vol. 1 (Berlin 1924) 225 = *Kleine Schriften* p. 308: "daß das Arm. unter den lebendigen idg. Sprachzweigen etwa nach drei Seiten hin nähere verwandtschaftliche Beziehungen hat: w. zum Griech., ö. zum Indisch-Iran., n. zum Slavisch-Balt."

23. Phrygian $\alpha\nu\alpha\rho$ 'man', Arm. *ayr*, Gk. $\alpha\nu\eta\rho$ vs. Vedic *nar-*, Albanian (Alban.) *njer* etc.

24. Old Phryg. $\epsilon\delta\alpha\epsilon\varsigma$ vs. Hittite *dāiš*; Arm. *eber*, Gk. $\epsilon\phi\epsilon\rho\epsilon$, Skt. *abharat* < **e-bher-et*.

25. Cf. for instance Porzig 1954: 162ff.; Solta 1960: 474f.; Djahukian 1980: 4ff.

26. Cf. Schmidt, *Armenian and Indo-European*. In: Greppin (ed.) 1980: 35-58, 39; id., Հիմ հայերեն բայի հնդեվրոպական հիմքը Պատմա-բանասիրական հծնդես 1 (104) (1984) 17-37, 19 = *Die indogermanischen Grundlagen des altarmenischen Verbums*: KZ 98 (1985) 214-247, 216.

27. Cf. W. Meid, "Probleme der räumlichen und zeitlichen Gliederung des Indogermanischen." In: H. Rix (Hrsg.), *Flexion und Wortbildung. Akten der V. Fachtagung der Indogermanischen Gesellschaft* (Wiesbaden 1975) 204-219 and see the critical discussion of the latter: B. Schlerath, "Ist ein Raum/Zeit Modell für eine rekonstruierte Sprache möglich?": KZ 95 (1981) 175-202;



At the First International Conference on Armenian Linguistics in Philadelphia (1979) I interpreted this model, taking "for granted that the coincidences between these languages were more extensive in prehistoric times, having since been obscured by later innovations. In other words, one may say that the unattested Armenian of the 15th century BC must have had closer connections with Greek and Indo-Iranian than the historically attested Armenian of the 5th century AD"²⁸. The concept of an Indo-Iranian-Greek-Armenian dialect group has recently been suggested by several scholars, including Gamkrelidze and Ivanov 1984: 398, but their hypothesis that Greek subsequently split off first from this group must be rejected, as quite a number of isoglosses indicate continuous contacts between Greek and

id., "Sprachvergleich und Rekonstruktion: Methoden und Möglichkeiten:" *InL* 8 (1982-1983) 53-69; id., "Probleme der Rekonstruktion: Schlußwort und Ausblick:" *InL* 10 (1985) 11-18; the contributions by E. Campanile, F. Crevatin, M. Doria, R. Gusmani, R. Lazzeroni, E. Neu, P. Ramat, K.H. Schmidt and K. Strunk in *InL* 9 (1984) 65-152; J. Untermann, "Urspache und historische Realität. Der Beitrag der Indogermanistik zu Fragen der Ethnogenese." In: *Studien zur Ethnogenese. Rhein.-Westfäl. Akad. d. Wiss., Abhdl.* 72 (1984) 133-164.

28. Cf. Schmidt 1980: 39.

Armenian²⁹.

Other scholars have interpreted the Indo-Iranian-Greek-Armenian model not as a dialect group, but as a more or less direct descendent of Proto-Indo-European. One proponent of this theory, which was widely accepted before the discovery and identification of Hittite, was Karl Hoffmann³⁰, who defined the Indo-European verbal system on the basis of Vedic and Greek as follows: "Ohne das reichliche Material, das die beiden archaischen Sprachen, das Vedische und das Griechische, liefern, ergäben sich nur disiecta membra; aufgrund des Vedischen und Griechischen aber ergibt sich ein geschlossenes System, und es spricht m. E. alles dafür, daß dieses Verbalsystem das urindogermanische gewesen ist."³¹ In the light of the Anatolian evidence, this theory is no longer tenable.

The remainder of this paper will be devoted to the medio-passive *a*-aorist and medio-passive *i*-present.

The origin of the *a*-stem formation of the medio-passive aorist has not yet been satisfactorily explained³² It is formed as follows:

Medio-passive *ber-ay*, *-ar*, *-aw*; *-ak'*, *-ayk'*, *-an*: active *ber-i*, *-er*, *e-ber*; *-ak'*, *-ēk'/-ik'*, *-in*; *sire-ç-i*, *-er*, *sirea-ç*; *-ak'*, *-ēk'/-ik'*, *-in*.

On the one hand the *a* of the stem formation is identified with the *ā*-preterite, whose reflexes are evidenced in Italic, Celtic, Baltic, Slavic, Toch. and in a few Greek intransitive verbs. Following³³ are examples:

29. Cf. the investigations by Bonfante, Porzig, Solta and Djahukian, following Pedersen 1906.

30. Cf. K. Hoffmann, "Das Kategoriensystem des indogermanischen Verbums": *MSS* 28 (1970) 19-41, 41 = *Aufsätze zur Indoiranistik*, Vol. 2 (Wiesbaden 1976) 540.

31. A similar opinion is expressed by H. Rix, *Zur Entstehung des urindogermanischen Modusystems: IBS, Vorträge und Kleinere Schriften* 36 (Innsbruck 1986) 23.

32. Cf. R. Schmitt, *Grammatik des Klassisch-Armenischen mit sprachvergleichenden Erläuterungen* (Innsbruck 1981) 149f., who remarks on the stem formation in *-a*-: "nicht erklärt".

33. Cf. the references cited in Schmidt 1984, 30f.

ἐμίῃα in the Cyrenean subjunctive μιῇα :
 μιάινομαι; ἐφθία. ἄπέθανεν Hes. : φθίνω ; Lac.
 ἄπεσσοῦα : ἄπέσσυτο 'is gone, dead'; ἐξερρύα Epidaur.
 : ῥέω, Lith. *pa-srùvo* 'flowed', Toch. preterite
 medio-passive : B *park-s-a-te* 'asked', A *präks-ā-t*; active
 sg. 1-3 *kaut-ā-wa* 'I split', -*a-sta*, -*a*; Latin *eram* <
 **es-ā-*, Oscan *fuf-a-ns* 'erant'; Lith. *sùk-o* 'turned' = Old
 Church Slavonic (OCS) **сѣка* (Russian *скать* 'twist').

This theory presupposes the mainly intransitive function of the morpheme */ā/ in Armenian. On the other hand, I would like to mention E. Kieckers' hypothesis that the *a* of the Armenian medio-passive aorist is derived from the 3rd person plural indicative medium of athematic aorists³⁴, a theory which has recently been extended by G. Klingenschmitt: "Die analogische Übertragung des -*a*- auf die übrigen Formen des Paradigmas wurde vielleicht durch das Vorhandensein eines ererbten Nebeneinanders von Formen wie *edan* < **e-d^hE-ŋto* : *edaw* < **e-d^hŋ-to*, *cnan* < **ġenE-ŋto* : *cnaw* < **ġenE-ŋto* veranlaßt oder zumindest erleichtert"³⁵. Klingenschmitt's reconstruction of the 3pl and 3rd person singular³⁶ corresponds to the Indo-European sound laws, if one accepts the transition of *-*ato* to -*aw* in the 3sg. The lack of parallels, however, makes it impossible to prove this sound development, and the possibility of a morpheme */u/ instead of

= 1985, 230f.

34. Cf. E. Kieckers, *Armenisches: IF* 35 (1915) 111: "Daß im Armenischen Reste medialer Flexion nicht ausgeschlossen sind, ist bekannt. Es muß te sich hier -*ŋto* über -*anto* zu -*an* entwickeln; die 3. plur. *sireçan* [. . .] wäre so lautgesetzlich entstanden. Das *a* wurde nun, indem man *n* als Endung auffaßte, als charakteristischer Vokal des mediopassiven Aoristes empfunden und so auf die anderen Personen übertragen."

35. Cf. G. Klingenschmitt, *Das altarmenische Verbum* (Wiesbaden 1982) 9.

36. *edan* < **e-d^hE-ŋto* : *edaw* < **e-d^hE-to*, *cnan* < **ġenE-ŋto* : *cnaw* < **ġenE-to*.

*/t/, postulated by other scholars,³⁷ cannot be excluded.³⁸

The expansion of the stem vowel *a* of the athematic 3pl ending over the whole paradigm remains extremely hypothetical since typological parallels for a comparable expansion are lacking. The medio-passive *r*-endings in Celtic, Italic, Tocharian and Hittite, derived from the 3pl perfect³⁹, have been discussed, but this theory is not uncontested.⁴⁰ Kieckers' hypothesis implies that the stem vowel *a* was generalized in a very early period, as "der athematische Typus [. . .] praktisch überall im Idg. außer im Hethitischen am Aussterben [ist]"⁴¹. It is doubtful, however, whether the arising of the medio-passive *a*-stem formation, which is restricted to Armenian, can be postulated for such an early stage.

37. Cf. the references cited in Schmidt 1984, 23f. = 1985, 222. R. Stempel remarks on this problem: "Belege für die Entwicklung von *-to- > arm. -y sind *li* (mit Schwund von y hinter i) 'voll' < **plē-to-* und *anluay* 'ungewaschen' zu *luanam* 'wasche mich', das zwar etymologisch nicht restlos gekärt ist, aber dennoch den Ansatz eines **to*-Partizips zu einer **ā*-Stammbildung ermöglicht, also **-a-to-*, wobei beide umgebenden Vokale dunkel sind." On the other hand, as U. Seefloth has pointed out, *lu* < **klu-to-* is ambiguous as to the disappearance of y or w.

38. *ber-a-w* 'he was carried', *et-e-w* 'he became': perfect Vedic 1 and 3sg. *jajñau*, Latin (g)*nō-u-ī*, aorist Alban. *bashko-v-a* 'united', preterite Toch. B. *prekwa* 'asked', *prekasta*, *preksa*, *prekar*; Gaulish 3sg *ieur-u* 'has consecrated' (Cf. Schmidt, ZCP 41 [1986] 176 on the basis of P.-Y. Lambert, ZCP 37 [1979] 207ff.: "**epi-pepor-u* > **ei-eor-u* > **ei-eur-u* > *ieuru* (mit *ei* > *i*) bzw. *eiōrou* mit *ei* > *i* und *eu* > **ou* > *ō*) : altir. *ro-īr* < **-ēr-e* < **eer-e* (Assimil.) < **eor-e* > **pepor-e*").

39. Cf. for instance O. Szemerényi, *Einführung in die vergleichende Sprachwissenschaft* (3Darmstadt 1988) 257ff.

40. Cf. for instance Schmidt, "Zum altirischen Passiv": *IF* 68 (1963) 257-275 (furthermore J. Pokorny in *IF* 70 (1965) 316-321; Schmidt, *MSS* 20 (1967) 59-65; C. Watkins, *Indogermanische Grammatik* III/1 (Heidelberg 1969) 194ff.; W. Cowgill, "On the prehistory of Celtic passive and deponent inflection": *Ériu* 34 (1983) 73-111, especially 108f.

41. Cf. Watkins 1969: 25.

Finally, there are a number of attestations which are etymologically clear, but which do not confirm the athematic inflection postulated for Armenian by Greek or Indo-Iranian parallels. We note the aorist of the suppletive verb *utem, keray* 'to eat', whose 3sg differs from the medio-passive paradigm by thematic inflection.⁴²

The Armenian medial inflection, lacking in Indo-Iranian, is a late innovation, as is additionally confirmed by the 3sg *eker*: because of its especially high text frequency, the 3sg preserved the older active inflection. Of interest also is *cnanim, cnay* 'to be born'.⁴³

The Armenian paradigm of *cnay, cnar, cnaw* corresponds in its formation to the type *beray, berar, beraw*, which is known as the medio-passive aorist of thematic verbs. The Greek and Indo-Iranian parallels of *cnanim* suggest that Armenian had a thematic inflection as well. The late *absolute chronology* of Armenian forbids the connection of *cnaw* and *cnan* with the more archaic athematic paradigm of Skt. *ajani*.⁴⁴ The assumption of convergent developments towards a thematic aorist of the Indo-European root **ĝenE-* in Indo-Iranian, Greek and Armenian becomes even more likely if we see them in connection with the comparable formation of nasal presents in the four languages (cf. Solta 1960: 97). Av. *zānaite* 'they are born', Greek γεννώω 'conceive', Arm. *cnanim : cnay* (cf. *meṛanim : meṛay*). The

42. Arm. *keray, kerar* : *eker* (*keraw* later by analogy); *eker* < **e-g^wer-e-t* < **e-g^werO-et* : Avestan *jaraiti*, Skt. *girati*; Klingenschmitt 1982, 279 proposes *eker* < **e-kerā-t* < **e-kerO-t*.

43. Gk. (thematic aorist) ἐγένετο, ἐγένοντο, = Skt. (thematic imperfect) *ajanata, ajananta* Skt. (thematic 1sg indicative medium aorist) *ajani* but Klingenschmitt 1982, 9: *cnaw* < **ĝenE-to*, *cnan* < **ĝenE-nto*.

44. Skt. 2sg injunctive medium *rik-thās* : Arm. *elik'*, Gk. ἔλιπε is another example of the restriction of the athematic inflection to Skt. Cf. H. Rix, *Historische Grammatik des Griechischen. Laut- und Formenlehre* (Darmstadt 1976) 216; W.D. Whitney, *The Roots, Verb-Forms and Primary Derivatives of the Sanskrit Language* (Leipzig 1885) 139.

analogical transfer of the present stem formation to the antonym 'to die' (*meṛanim*) is restricted to Armenian⁴⁵. Note also *dnem*, *edi* 'to set', 3sg aorist *ed*. Cf. R. Schmitt, *Grammatik* 54; Schmidt 1984: 25 = 1985: 224, and Arm. *ed* < **e-d^hE-to* : OCS *dě*, Vedic *adhāt*; **e-d^hH-to* : Skt. *adhita*, Gk. ἔθετο.

Klingenschmitt 1982 traces the corresponding medial aorist forms of the 3rd person, *edaw*, *edan*, back to Proto-Indo-European. Even though these reconstructs are confirmed for the 3sg by Skt. and Greek parallels, they still seem unlikely for three reasons: a) the derivation of Arm. *edaw* from **e-d^hH-to* is unproven; b) from the point of view of its AC, the Armenian tradition cannot be compared to Greek and Indo-Iranian; c) *edaw* and *edan* can also be independently explained on the basis of the Armenian paradigm: cf. *beraw*, *beran*.

Summing up, the derivation of the medio-passive *a*-stem formation of the aorist from the athematic 3pl or 3sg contradicts three general principles of reconstruction: a) it is based exclusively on language comparison without taking into account the method of internal reconstruction; b) it disregards typological probability: the expansion of a 3pl morpheme is unlikely; c) for the 3sg, it is based on an unparalleled sound law: **-ato* > *-aw*.

Therefore, at the present stage of research, the identification of the morpheme *a* with the Indo-European *ā*-preterite is to be preferred.

Finally we take note of the medio-passive *i*-present. Meillet (*Esquisse* 107) compared the functions of the Armenian *i*-stem formation with the Indo-European medio-passive: "Il fournit des passifs aux verbes en *-e-*".⁴⁶ He also noted that "Il fournit des verbes pareils à ceux du type en *-e-* et qui jouent le rôle que jouent en indo-iranien et en grec les verbes à désinences exclu-

45. Cf. A. Meillet, *Esquisse d'une grammaire comparée de l'arménien classique* (Vienna 1936) 184 (on *meṛanim*): "présents correspondants dans autres langues sont sans nasale"; 54: **mernim* > *meṛanim*.

46. Arm. *berem* 'I carry' : *berim* 'I am being carried'.

sivement moyennes, en latin et en irlandais les déponents.⁴⁷

The *i* of the present stem formation is also attested in the Armenian present in *-č'im* (< **-ič'im*) and the aorist in *-eay* (< **-iaay*), which are generally incorporated⁴⁸ into one paradigm.⁴⁹

The theories interpreting the stem vowel *i* may be divided into two groups. The proponents of group I identify the morpheme with a stem formation, discussing various etymological connections, for instance the intransitive Greek aorists in **-ē*, which Godel⁵⁰ connected with Slavic and Baltic preterites.⁵¹

There are the "half thematic" *i*-presents of Baltic (with *i*) and Slavic (with *ī*)⁵² or the western Indo-European presents of state in

47. Arm *nstim* 'I sit' : Gk. ἔζομαι; *meranim* 'I die': Skt. *mriyāte* 'he dies', Latin *morior*.

48. Cf. Meillet, *Esquisse* 109f.: "Il est tombé une voyelle devant *-č-*, à savoir *i*, à en juger par le *-ea-* de l'aoriste, qui est issu d'un plus ancien **-ia-* : *t'ak'čim*, *t'ak'eay* supposant **t'ak'i-*; on rapprochera lat. *-iscō*, gr. *-ίσκω*, types *reminiscor*, *ἀλίσκομαι*".

49. Arm. *t'ak'čim* 'I hide myself', *t'ak'eay* : **t'ak'i-*; *yarnem* 'I rise', *yareay* : imperative *ari*, *arik'*.

50. Cf. R. Godel, in: *Mélanges linguistiques offerts à É. Benveniste* (Paris 1975) 229f.: "En lituanien aussi, des thèmes de prétérit en *-ē-* correspondent régulièrement aux présents semi-thématiques en *-i-*, et il s'agit, dans la règle, de verbes d'état. Là, comme en arménien, mais sans doute de façon indépendante, le thème en **-ē-* a été élargi par **-ā-*: *sėdėjo*, *turėjo*, en regard des présents *sėdi* 'il est assis', *tūri* 'il a', présentent la même structure que arm. *yareay*, *t'ak'eay*, etc. La formation, en lituanien, est certainement récente. Elle prouve néanmoins que la combinaison **-ē-ā-* que fait soupçonner l'aoriste en *-eay*, s'est réalisée ailleurs qu'en arménien".

51. Gk. ἐκόη 'burned (intr.)' : καίεται, φάνη 'lightning flashed' : φαίνεται; OCS *sědě* 'he sat', Lith. *sėdėjo* (for **sėdė*).

52. Cf. Djahukian 1982 [footnote 11] 173: "Основы глаголов на *-im* восходят частично к *i-e*. атематическтым основам на *-i-* (*-y-*) (восточный ареал, причем в древиндийском и греческом им соответствует тематический тип **-ye-/*-yo-/*-i-*

**ē* (of the type Latin *habēre*, *sedēre*). The ablaut **-ēi-/i-* reconstructed by W.P. Schmid⁵³ offers the possibility of a common etymological source for different ablaut degrees, including the thematicized Indo-Iranian *ya*-stems and the athematic Armenian *i*-stems. For the prototype of the Armenian material, we probably have to reckon with generalization of affix⁵⁴ in the reduced ablaut degree.⁵⁵

A second group is represented by Klingenschmitt (1982: 10f), who derives the Armenian *i*-stem formation from the Indo-European medium. The theory is based on several hypotheses. The point of departure is the singular indicative of a thematic middle; here note Arm. *-im* < **-emai* (with analogical expansion of the thematic vowel *e* < **-omai* following the active *-mi*) < **-o-Aey*.

We note also that, in analogy to the stem vowel of other classes (*a*-, *u*-presents), the morpheme *i*, which resulted from the transformation just mentioned, is interpreted as a stem vowel and generalized from the positions before nasals to other positions. In the active paradigm of the thematic conjugation⁵⁶ the *m* of the medial ending of the 1 sg is substituted for the older ending **-ō* of the active "erst nach Abschluß des Wandels von antenasalischem *e* zu *i*" (1. c. 11). This process followed the analogy of the *a*- and *u*-stems.⁵⁷

It seems obvious that the persuasiveness of this theory is considerably reduced by the unproven hypotheses on which it is based. For instance, the substitution of **-m* for **-ō* in *berem* can hardly be established by the medial ending, whose existence is itself very doubtful. More likely explanations are the influence of the copula *em* and athematic present stem classes, or the avoidance

менее вероятно восхождение *-i-* к **-ē-* западного ареала."

53. Cf. W.P. Schmid, *Studien zum baltischen und indogermanischen Verbum* (Wiesbaden 1963) and Schmidt in *Kratylos* 9 (1964) 148-151 and *Ériu* 20 (1966) 202-207.

54. Cf. Schmidt, *KZ* 89/1 (1975) 92f.; see also Schmidt 1980: 40ff.

55. Arm. **-ēi-/i-* > **-i-* > *-i-* : *meranim* : Skt. *mriyāte*; *nstim* : **sed-ē-*; *unim* : Lith. *turėti*, OCS *iměti*, Lat. *habēre*.

56. Arm. *berem*, *beres*, *berē*; *beremk'*, *berēk'*, *beren*.

57. Arm. 2sg : 1sg *-as* : *-am*, *-us* : *-um*, *-es* : *x*; *x* = *em*.

of homonymy with the imperative (Meillet, *Esquisse* 111).⁵⁸

Two further drawbacks may be mentioned. First, the construction of the 5th century Armenian verbal paradigm exhibits a transformation of the formal organization of diathesis: the medio-passive diathesis is marked by the stem vowels *a* (in the aorist) and *i* (in the *e*-present). The old Indo-European medio-passive personal endings, moreover, are not attested in Armenian, as it is to be expected considering the late tradition of this language. On the other hand, if we interpret the morpheme *i* as an old stem formation, we arrive at a satisfactory explanation: the medio-passive personal endings, which had lost their function, were replaced by the generalized stem formation in *i*.

Secondly the interpretation of the vowel alternation *e/i* in the paradigms of *berem* and *berim* by diverging analogies is an *ad hoc* argument. In assuming an expansion of the *i*, it also ignores the unmarked and conservative character of the 3sg which, due to its generally high text frequency, is not inclined to change. On the other hand, if we explain the stem vowel *i* as a morpheme applied to functionally comparable contexts in other Indo-European languages, we are in agreement with the basic principles of reconstruction: elements which coincide in form and function are identified with each other and incorporated in the same paradigm⁵⁹.

58. **ber* < **bherō* : *ber* < **bhere*.

59. Cf. also the review by G.R. Solta in *Kratylos* 29 (1984 [1985]) 59-74 and John A.C. Greppin: "Armenian and the Theory of Etymology:" *JIES* 17 (1989) 165-170.